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B. Board
3/15/04

5244-0117-2X CONT

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF:

Tetsuro MOTOYAMA EXAMINER: PRIETO, B.

SERIAL NO. 09/457,669

FILED: December 9, 1999 GROUP ART UNIT: 2142

FOR: METHOD AND SYSTEM FOR DIAGNOSIS AND CONTROL OF MACHINES USING CONNECTION AND CONNECTIONLESS MODES OF COMMUNICATION




APPEAL BRIEF

COMMISSIONER FOR PATENTS
ALEXANDRIA, VA 22313

SIR:

This is an appeal from the decision of the Examiner dated March 12, 2003, which finally rejected Claims 52-124 in the above-identified patent application.

## I. REAL PARTIES-IN-INTEREST

Ricoh Company, Ltd. and Ricoh Corporation

## II. RELATED APPEALS AND INTERFERENCES

Appellants make of record an appeal that is pending in Serial no. 08/738,461 and that could directly affect or be directly affected by or have a bearing on the Board's decision in this appeal. That application was also the subject of an earlier decision by the Board, mailed September 5, 2002. For the convenience of the Board, it is noted that that decision was cited in this case on January 2, 2003. Applicants have also submitted herewith an IDS of a

decision cited in another case after the Notice of Appeal was filed in this case. That decision concerns application serial no. 08/738,659.

## III. STATUS OF CLAIMS

Claims 52-124 are currently pending, and Claims 52-124 are being appealed.

## IV. STATUS OF AMENDMENTS

All amendments in this application have been entered.

## V. SUMMARY OF THE INVENTION

The present invention is directed to office devices, such as printers,[1] that include the ability to transmit status information from the business office device to a monitoring device, such as a remote computer.[2] Tables 1A-1B on page 25 of the specification illustrate numerous types of information that can be transmitted from three different types of business office devices. These include information on changes to the machine, copies and usage information for the machines. Such statistics may be helpful in determining whether machines are over- or under-utilized. As claimed, the information is transmitted in an e-mail using a protocol at an application layer.

## VI. ISSUES

The issues on appeal are whether Claims 52-76, 77-100 and 101-124 are rendered obvious by U.S. Patent No. 5,123,089 (hereinafter "the '089 patent") either alone or in

1 See specification, page 14, lines 16-20.
2 See specification, page 14, line 26 to page 15, line 1; and page 17, lines 15-17.

combination with at least one of U.S. Patent No. 5,184,179 (hereinafter "the '179 patent"), U.S. Patent No. 4,750,114 and U.S. Patent No. 5,715,393 (hereinafter "the '393 patent").

## VII. GROUPING OF THE CLAIMS

The claims are to be grouped in three groups. The first group is claims 52-76; the second group is claims 77-100; and the third group of claims is claims 101-124. The first group of claims is directed to particular physical embodiments of a business office device which utilize various components and which enable the status of the business office device to be communicated using e-mail. This first group of claims most clearly accentuates the elements contained within a business office device, as opposed to devices which might be outside of the business office device.

The second group of claims (i.e., claims 77-100) is directed to methods of monitoring a business office device, as executed on a business office device. While it is believed that the preamble of claim 77 makes it clear that the recited methods in claims 77-100 are "executed on a business device", if the Board were to find that the preambles of those claims were not limitations, then the structure of the first group of claims would be separately patentable from the methods of the second group of claims.

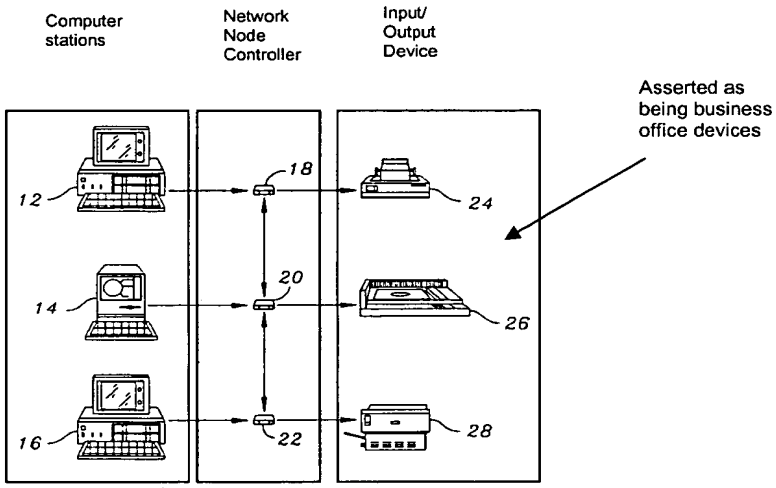
Lastly, the third group of claims is also directed to "monitoring a business office device" where the e-mail is transmitted "to a remotely located monitoring device." It is believed that claims 101-124 should be interpreted like claims 77-100 to be software run on the business office device itself. However, should the Board find that claims 101-124 are not directed to code run on the business office device, then claims 52-76 are still separately patentable from claims 101-124 as being directed to specific structure that co-exists within the same business office device. Similarly, claims 77-100 are still separately patentable from

claims 77-100 as being directed to a method performed in a single location, i.e., on the business office device.

## VIII. ARGUMENTS

### A. Introduction

A brief overview of the terminology of the '089 patent is believed to be in order. A portion of Fig. 1 has been reproduced below and annotations have been added thereto to accentuate misperceptions about the teachings of the '089 patent.




The labels associated with the various parts of the annotated figure are taken from col. 6, lines 35-42, and from the office action. The importance of proper identification of these elements can be seen with reference to the rejection. The office action has asserted that "Beilinski teaches a business office device (24, 26 and 28)", so the elements recited as being part of the business office device must be found within the elements 24, 26 and 28. However, a closer examination of the location of many of the elements cited by the office action shows that the network node controllers 24, 26, and 28 include the elements referenced within the '089 patent.

Col. 16, lines 51-52 discuss that Figs. 2-8 are part of the "invention" of the '089 patent which is the network controllers. As described in col. 18, lines 37-39, of the '089 patent, "FIG. 5 illustrates the dip switch 78 in which the identification number is manually set, which uniquely identifies the controller to which the circuitry of FIGS. 2-10 correspond." Thus, the "at least one memory" asserted in line 6 of section 5 of the office action as corresponding to an element of a business office device is not actually part of the business office device at all. Instead, it is part of a network node controller.

Moreover, the discussion of email in the '089 patent is directed to network controller to network controller communication, and does not originate in any of the devices 24, 26 and 28 which were asserted in the office action as corresponding to a business office device. For example, see the abstract, lines 24-26, which states "Electronic mail is handled between the network controllers to allow data to be sent from one computer within the network to the other." Similarly, the '089 patent further states:

> Consider now the operation of a network electronic mail session. A network mail session refers to communication that occurs when a network node controller with one ID sends a mail message to a network node controller with a different ID. A mail session is initiated when a sending network node controller requests to seize the receiving network node controller's mailbox. The receiving network node controller's mailbox can be seized only by one sender at a time, and the seizure of the mailbox prevents two senders from trying to send a message at the same time.[3]

Thus, the elements corresponding to the email interactions are not elements within the devices 24, 26 and 28, but rather within the network controllers 18, 20 and 22.

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3 Col. 12, lines 3-13.

One of ordinary skill in the art also would not have been motivated to modify the '089 patent to incorporate the network controllers 18, 20 and 22 into the devices 24, 26 and 28 as making such a change would alter the principle of operation of the network controllers 18, 20 and 22. As described in col. 7, lines 45-54, the network controllers 18, 20 and 22 are designed with keypads thereon in order to select which printer is to be used. If the network controller were to be integrated into the devices 24, 26 and 28, than the devices 24, 26 and 28 would have to be closer to a user. Also, the inclusion of the network controllers into the devices 24, 26 and 28 would increase the cost of those devices and limit the flexibility of being able to exchange one device for another without having to replace the network controller. Moreover, the network controllers utilize a special-purpose bus with collision detection to communicate between themselves and another interface for communicating with the devices 24, 26 and 28. The office action has not established how, if the network controllers were integrated into the devices 24, 26 and 28, the equivalent network controller functions would interact while still communicating with computers. Would there be one or two communications interfaces within the devices 24, 26 and 28? For at least these reasons, there is no motivation to modify the '089 patent to include the network controllers within the devices 24, 26 and 28.

Rejection of claims 52-76

The rejection of claims 52-76 over the '089 patent, either alone or in view of the '179, '114 and '393 patents should be reversed. Claims 52 and 76 recite a business office device comprising:

> at least one memory for storing status information of the business office device; and

an e-mail interface for transmitting, using a protocol at an application layer, an e-mail containing a first portion of the status information to the monitoring device.

As discussed above, the office action asserts that the '089 teaches that devices 24, 26 and 28 correspond to business office devices. See line 3 of section 5 of the office action. However, if the position of the office action is that devices 24, 26 and 28 correspond to a business office device, then the rejection is flawed since neither the memory nor the e-mail interface cited by the office action is an element of any of the devices 24, 26 and 28. Instead, as described above, the office action has referenced elements of the network controllers 18, 20 and 22. Moreover, any communications via email are between network controllers and not from a business office device.

With respect to each of the secondary references, the office action has not asserted that any of the '179, '114 and '393 patents teach transmitting "an email containing a first portion of the status information to the monitoring device." Thus, the combination of references is missing the same elements not taught by the references individually, and the rejection of claims 52-76 should be reversed.

Rejection of claims 77-100

The rejection of claims 77-100 over the '089 patent, either alone or in view of the '179, '114 and '393 patents should also be reversed. Claim 77 recites a "method executed on a business office device" that includes the step of "storing status information of the business office device in at least one memory within the business office device." Thus, these limitation preclude the interpretation of the office action described above where the elements

of the network controller are being impermissibly alleged to be within the devices 24, 26 and 28. As such, this ground for rejection should be reversed.

Rejection of claims 101-124

The rejection of claims 101-124 over the '089 patent, either alone or in view of the '179, '114 and '393 patents should also be reversed. Claim 101 recites "a second computer code configured to transmit, to a remotely located monitoring device and using a protocol at an application layer, an e-mail containing a first portion of the status information." The office action has failed to establish any support for its position that one of ordinary skill in the art would have used email to transmit the claimed "first portion of the status information" which relates to the business office device. As discussed above, the '089 patent discloses the use of email, but not in the context of transmitting status information about business office devices. The '089 patent describes utilizing email for transfers between computers with data originating at the computers, but not with status information of the business office device.

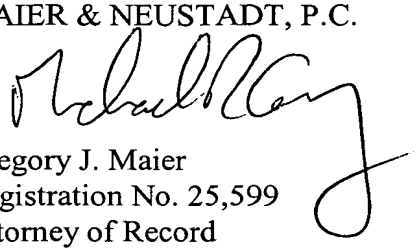
The office action is asserting that one of ordinary skill in the art would have been motivated to change the teachings of the '089 patent to use email (which the '089 patent already used), in a fashion other than how the '089 patent used email. If the inventors of the '089 patent did not see how to modify their own invention having had e-mail before them, it is untenable that one of ordinary skill in the art would have modified the teachings of the '089 patent in the fashion asserted by the office action. Thus, the rejection of claims 101-124 should be reversed.

Conclusion

It is respectfully requested that the outstanding rejection be REVERSED.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



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## APPENDIX: APPEALED CLAIMS 52-124

52. A business office device which is connected to a monitoring device that monitors the business office device, the business office device comprising:

at least one memory for storing status information of the business office device; and

an e-mail interface for transmitting, using a protocol at an application layer, an e-mail containing a first portion of the status information to the monitoring device.

53. The business office device as claimed in Claim 52, further comprising a direct connection mode-based interface for transmitting to the monitoring device at least one of a second portion of the status information and the first portion of the status information.

54. The business office device as claimed in Claim 53, wherein the at least one memory stores the status information such that both the e-mail interface and the direct connection-mode interface can each transmit at least one of the first and second portions of the status information.

55. The business office device as claimed in Claim 52, wherein the business office device transmits the first portion of the status information to the monitoring device at a predetermined interval.

56. The business office device as claimed in Claim 52, wherein the business office device transmits the first portion of the status information to the monitoring device when an event occurs in the business office device.

57. The business office device as claimed in Claim 52, wherein the at least one memory comprises a semi-static memory for storing an assigned name of the business office device.

58. The business office device as claimed in Claim 57, wherein the assigned name is communicated to the monitoring device.

59. The business office device as claimed in Claim 52, wherein the at least one memory comprises a semi-static memory for storing an assigned address of the business office device.

60. The business office device as claimed in Claim 59, wherein the assigned address is communicated to the monitoring device.

61. The business office device as claimed in Claim 52, wherein the first portion of the status information transmitted by the e-mail interface is transmitted to the monitoring device based on a request received from the monitoring device.

62. The business office device as claimed in Claim 61, wherein the request is received via e-mail.

63. The business office device as claimed in Claim 62, wherein the business office device is a printer.

64. The business office device as claimed in Claim 52, wherein the at least one memory comprises a semi-static memory for storing an option configuration.

65. The business office device as claimed in Claim 52, wherein the at least one memory comprises a static memory for storing a model number.

66. The business office device as claimed in Claim 52, wherein the at least one memory comprises a static memory for storing a serial number.

67. The business office device as claimed in Claim 52, wherein the at least one memory comprises a static memory for storing characteristics of said business office device which do not change over a life of said business office device.

68. The business office device as claimed in Claim 52, wherein the at least one memory comprises a dynamic memory for storing dynamic data.

69. The business office device as claimed in Claim 52, wherein the at least one memory comprises a dynamic memory for storing an indication of a paper tray present in the business office device.

70. The business office device as claimed in Claim 52, wherein the at least one memory comprises a dynamic memory for storing an indication of a voltage used in the business office device.

71. The business office device as claimed in Claim 52, wherein the at least one memory comprises a dynamic memory for storing an indication of a status of paper in a paper tray present in the business office device.

72. The business office device as claimed in Claim 52, wherein the at least one memory comprises a dynamic memory for storing an indication of an amount of oil in the business office device.

73. The business office device as claimed in Claim 52, wherein the at least one memory comprises a dynamic memory for storing an indication of an amount of toner in the business office device.

74. The business office device as claimed in Claim 52, wherein the at least one memory comprises a dynamic memory for storing an indication of a sensitivity of a photo-receptor in the business office device.

75. The business office device as claimed in Claim 52, wherein the at least one memory comprises a dynamic memory for storing an indication of a number of prints made by the business office device.

76. A business system comprising:

a business office device; and

a monitoring device for monitoring the business office device from a remote location,

wherein the business office device includes (1) at least one memory for storing status information of the business office device, and (2) an e-mail interface for transmitting, at an application layer, an e-mail containing a first portion of the status information to the monitoring device.

77. A monitoring method executed on a business office device, the method comprising:

storing status information of the business office device in at least one memory within the business office device; and

transmitting, using a protocol at an application layer, an e-mail containing a first portion of the status information to a remotely located monitoring device.

78. The monitoring method as claimed in Claim 77, further comprising:

establishing a direct connection to the monitoring device; and

transmitting, across the direct connection, at least one of a second portion of the status information and the first portion of the status information.

79. The monitoring method as claimed in Claim 78, wherein the step of storing comprises storing the status information in a common memory such that both the first and second portions of the status information are read from the common memory.

80. The monitoring method as claimed in Claim 77, wherein the step of transmitting comprises transmitting the first portion of the status information to the monitoring device at a predetermined interval.

81. The monitoring method as claimed in Claim 77, wherein the step of transmitting comprises transmitting the first portion of the status information to the monitoring device when an event occurs in the business office device.

82. The monitoring method as claimed in Claim 77, wherein the at least one memory comprises a semi-static memory for storing an assigned name of the business office device.

83. The monitoring method as claimed in Claim 82, further comprising the step of communicating the assigned name to the monitoring device.

84. The monitoring method as claimed in Claim 77, wherein the at least one memory comprises a semi-static memory for storing an assigned address of the business office device.

85. The monitoring method as claimed in Claim 84, further comprising the step of communicating the assigned address to the monitoring device.

86. The monitoring method as claimed in Claim 77, further comprising the step of receiving a request from the monitoring device to cause the first portion of the status information to be transmitted to the monitoring device.

87. The monitoring method as claimed in Claim 86, wherein the step of receiving comprises receiving the request via e-mail.

88. The monitoring method as claimed in Claim 87, wherein the business office device is a printer.

89. The monitoring method as claimed in Claim 77, wherein the at least one memory comprises a semi-static memory for storing an option configuration.

90. The monitoring method as claimed in Claim 77, wherein the at least one memory comprises a static memory for storing a model number.

91. The monitoring method as claimed in Claim 77, wherein the at least one memory comprises a static memory for storing a serial number.

92. The monitoring method as claimed in Claim 77, wherein the at least one memory comprises a static memory for storing characteristics of said business office device which do not change over a life of said business office device.

93. The monitoring method as claimed in Claim 77, wherein the at least one memory comprises a dynamic memory for storing dynamic data.

94. The monitoring method as claimed in Claim 77, wherein the at least one memory comprises a dynamic memory for storing an indication of a paper tray present in the business office device.

95. The monitoring method as claimed in Claim 77, wherein the at least one memory comprises a dynamic memory for storing an indication of a voltage used in the business office device.

96. The monitoring method as claimed in Claim 77, wherein the at least one memory comprises a dynamic memory for storing an indication of a status of paper in a paper tray present in the business office device.

97. The monitoring method as claimed in Claim 77, wherein the at least one memory comprises a dynamic memory for storing an indication of an amount of oil in the business office device.

98. The monitoring method as claimed in Claim 77, wherein the at least one memory comprises a dynamic memory for storing an indication of an amount of toner in the business office device.

99. The monitoring method as claimed in Claim 77, wherein the at least one memory comprises a dynamic memory for storing an indication of a sensitivity of a photo-receptor in the business office device.

100. The monitoring method as claimed in Claim 77, wherein the at least one memory comprises a dynamic memory for storing an indication of a number of prints made by the business office device.

101. A computer program product, comprising:

a computer storage medium and a computer program code mechanism embedded in the computer storage medium for monitoring a business office device, the computer program code mechanism comprising:

a first computer code configured to store status information of the business office device in at least one memory; and

a second computer code configured to transmit, to a remotely located monitoring device and using a protocol at an application layer, an e-mail containing a first portion of the status information.

102. The computer program product as claimed in Claim 101, further comprising:
a third computer code device configured to establish a direct connection to the monitoring device; and

a fourth computer code device configured to transmit, across the direct connection, at least one of a second portion of the status information and the first portion of the status information.

103. The computer program product as claimed in Claim 102, wherein the first computer code device comprises a third computer code device configured to store the status information in a common memory such that both the first and second portions of the status information are read from the common memory.

104. The computer program product as claimed in Claim 101, wherein the second computer code device comprises a third computer code device configured to transmit the first portion of the status information to the monitoring device at a predetermined interval.

105. The computer program product as claimed in Claim 101, wherein the second computer code device comprises a third computer code device configured to transmit the first portion of the status information to the monitoring device when an event occurs in the business office device.

106. The computer program product as claimed in Claim 101, wherein the at least one memory comprises a semi-static memory for storing an assigned name of the business office device.

107. The computer program product as claimed in Claim 106, further comprising a third computer code device configured to communicate the assigned name to the monitoring device.

108. The computer program product as claimed in Claim 101, wherein the at least one memory comprises a semi-static memory for storing an assigned address of the business office device.

109. The computer program product as claimed in Claim 108, , further comprising a third computer code device configured to communicate the assigned address to the monitoring device.

110. The computer program product as claimed in Claim 101, further comprising a third computer code device configured to receive a request from the monitoring device to cause the first portion of the status information to be transmitted to the monitoring device.

111. The computer program product as claimed in Claim 110, wherein the third computer code device receives the request via e-mail.

112. The computer program product as claimed in Claim 111, wherein the business office device is a printer.

113. The computer program product as claimed in Claim 101, wherein the at least one memory comprises a semi-static memory for storing an option configuration.

114. The computer program product as claimed in Claim 101, wherein the at least one memory comprises a static memory for storing a model number.

115. The computer program product as claimed in Claim 101, wherein the at least one memory comprises a static memory for storing a serial number.

116. The computer program product as claimed in Claim 101, wherein the at least one memory comprises a static memory for storing characteristics of said business office device which do not change over a life of said business office device.

117. The computer program product as claimed in Claim 101, wherein the at least one memory comprises a dynamic memory for storing dynamic data.

118. The computer program product as claimed in Claim 101, wherein the at least one memory comprises a dynamic memory for storing an indication of a paper tray present in the business office device.

119. The computer program product as claimed in Claim 101, wherein the at least one memory comprises a dynamic memory for storing an indication of a voltage used in the business office device.

120. The computer program product as claimed in Claim 101, wherein the at least one memory comprises a dynamic memory for storing an indication of a status of paper in a paper tray present in the business office device.

121. The computer program product as claimed in Claim 101, wherein the at least one memory comprises a dynamic memory for storing an indication of an amount of oil in the business office device.

122. The computer program product as claimed in Claim 101, wherein the at least one memory comprises a dynamic memory for storing an indication of an amount of toner in the business office device.

123. The computer program product as claimed in Claim 101, wherein the at least one memory comprises a dynamic memory for storing an indication of a sensitivity of a photo-receptor in the business office device.

124. The computer program product as claimed in Claim 101, wherein the at least one memory comprises a dynamic memory for storing an indication of a number of prints made by the business office device.